

Notice of Allowability

Application No.

09/940,825

Examiner

Nelson D. Hernandez

Applicant(s)

KAKARALA ET AL.

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After Final Arguments filed on February 17, 2006.
2. ☒ The allowed claim(s) is/are 1-33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 1/17/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 14-16, filed February 17, 2006, with respect to claims 1, 6 and 19 have been fully considered and are persuasive. The rejections of claims 1, 6 and 19 have been withdrawn.

Allowable Subject Matter

2. **Claims 1-33 are allowed.**

3. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, in combination with the existing elements of the present claim, determining, for said pixel, a first edge-orientation of a first color and a second edge-orientation of a second color, said first and second edge-orientations each having a row component and a column component; and providing respective interpolation votes associated with said first edge-orientation and said second edge-orientation based on said respective row components and said respective column components to determine a selected interpolation orientation, said respective interpolation votes being either a first interpolation orientation or a second interpolation orientation, said selected interpolation orientation being based on the

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number of said interpolation votes for said first interpolation orientation and said second interpolation orientation.

Regarding claim 6, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, in combination with the existing elements of the present claim, determining for a given one of said first color values associated with a given one of said pixel locations a first degree of change using said set of first color values and a second degree of change using said set of second color values, said first and second degrees of change each having a row component and a column component; comparing said row component to said column component for both said first and second degrees of change to determine a selected interpolation orientation.

Regarding claim 19, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, in combination with the existing elements of the present claim, a processor adapted to receive a set of first color values and a set of second color values, said processor being further adapted to determine for a given one of said first color values associated with a given one of said pixel locations a first degree of change using said first set of colors and a second degree of change using said set of second color values, said first and second degrees of change each having a row component and a column component said row component being compared to said column component for both said first and second degrees of change to determine a selected interpolation orientation.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hel-or et al., US Patent 6,404,918 B1 teaches an image demosaicing method wherein a dominant orientation vector is found in a luminance image in order to determine an interpolation orientation (Col. 4, line 35 – col. 5, line 62).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:30 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nelson D. Hernandez
Examiner
Art Unit 2622

NDHH
May 10, 2006



TUAN HO
PRIMARY EXAMINER